

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

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Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Pediomelum castoreum* Rydb.

COMMON NAME: Beaver Dam scurfpea, Beaver scurf-pea, Beaver Dam breadroot, Beaver Indian breadroot

SYNONYMS: *Psoralea castorea* S. Watson

FAMILY: Fabaceae

AUTHOR, PLACE OF PUBLICATION: *Pediomelum castoreum* (S. Watson) Rydb., North American Flora 24(1): 22. 1919. *Psoralea castorea* S. Watson, Amer. Naturalist 12(9): 601. 1878.

TYPE LOCALITY: "Near Beaver City, Utah [according to Watson, but Palmer, gives the locality as 'between Beaver Dam, Arizona, and Saint Thomas, Nevada']." (MBG, accessed 2005). GH Isotype collection states "United States of America. Arizona. Mohave. Beaver City [Along Virgin River, near Beaver Dam]. **See Comments in TOTAL RANGE.

TYPE SPECIMEN: HT: ?? E. Palmer 96, 1877, ...in exposed sandy localities. IT: DS (frag), GH, K, MO, NY (4), PH, POM (frag), US. **MBG (2005) states Holotype as US, but US has collection listed as Isotype.

TAXONOMIC UNIQUENESS: Species *castoreum* is 1 of 20 in the genus *Pediomelum*.

DESCRIPTION: A low-growing, single-stemmed, deep-rooted, herbaceous perennial with glabrous, slender stems, with 4-5 foliate, palmate leaves with broadly cuneate-obovate, subcordate to rounded leaflets (5 or 6) and with 15 mm long, showy, bluish corollas and a single very broadly obovate lower calyx lobe (Kartesz 1987). Cronquist et al. (1989) reports "Perennial, mostly silvery-strigose, acaulescent to caulescent herbs to 16 cm tall; pseudoscaples to 10(14) cm long; lateral stems, when present, to 9.5 cm long, with leaves and inflorescence clustered at ends.... fruit oval to elliptic, uniformly strigose on upper half, about as long as lower calyx-tooth, the body 6-8 mm long.... seeds plump, not flattened, rugose, either gray-green or dark brown."

AIDS TO IDENTIFICATION: The single, very broad, lower lobe, is very significant in separating this species from the next. *P. castoreum* is much different from the nearly glabrous and erect *Psoralidium lanceolatum* (lance-leaf scurf-pea) with which it is occasionally confused (Kartesz 1987).

ILLUSTRATIONS: Line drawing (Cronquist et al., 1989: p. 25)

Color photo of Isotype Specimen (US-24030, in

<http://ravenel.si.edu/botany/types//fullRecords.cfm?myFamily=>)

Color photos of Isotype specimen (NY-26760 to 26762, in

<http://207.156.243.8/emu/vh/specimen.php?irn=710913>. & 710914, 710915.

Color photos (Margaret Williams, Nevada Native Plant Society, in

http://plants.usda.gov/cgi_bin/plant_search.cgi)

TOTAL RANGE: Arizona and southern Nevada, and possibly California and Utah. There is no evidence to indicate that it was ever collected in Utah, but it is known from a site ca 1.5 km south of the boundary along Beaver Dam Wash (Welsh et al. 1987).

RANGE WITHIN ARIZONA: All Arizona localities in northwest corner of state in Mohave County. These include Beaver Dam Wash, above Mormon Well, north of Peach Springs, SE of Littlefield, Black Rock Gulch.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous perennial from rootstalk.

PHENOLOGY: Flowers April to June.

BIOLOGY:

HABITAT: Desert shrub, in sand or sandy gravel in open areas and on road cuts. In Nevada, found in dry, sandy deserts (NNHP 2001).

ELEVATION: In Arizona, elevations range from 1,750 – 3,920 ft. (534-1196 m). NNHP (2001) reports elevations in Nevada ranging from 1,280 – 5,000 ft. (390-1524 m).

EXPOSURE:

SUBSTRATE: In sand or sandy gravel. Collected in level deep red sand, and in gravel pediment on sandy soil.

PLANT COMMUNITY: Endemic to the Mojave Desert region in desert shrub vegetation. Pinyon-Juniper Woodland, Juniper-Mahonia fremontii community. Associated species include: *Acamptopappus* (goldenhead), *Ambrosia acanthicarpa* (flat-spine bursage), *Gutierrezia* (snakeweed), *Hilaria belangeri* (common curly-mesquite), and *Larrea tridentata* (Creosotebush).

POPULATION HISTORY AND TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None (USDI, FWS 1996)
STATE STATUS: None
OTHER STATUS: None (USDI, BLM AZ 2005)
[Bureau of Land Management Sensitive
(USDI, BLM AZ 2000)]

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS:

LAND MANAGEMENT/OWNERSHIP: BLM – Arizona Strip Field Office; State Land Department; Private.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

Dr. Stan Welsh - curator of herbarium at Brigham Young University.

ADDITIONAL INFORMATION:

"Plants in the eastern portion of the range tend to be smaller and to have greenish upper leaflet surfaces with hairs mostly confined to the veins and margins. The California populations tend to be larger plants, with both leaflet surfaces of the same color and uniformly pubescent. However, these are the extremes of conditions that change gradually across the distribution." (Cronquist et al., 1989).

The large white farinaceous roots were eaten by the Pah-Utes (=Pai Utes) raw, as well as cooked, or made into bread or mush (Maisch 1889).

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